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CALTECH NEWS

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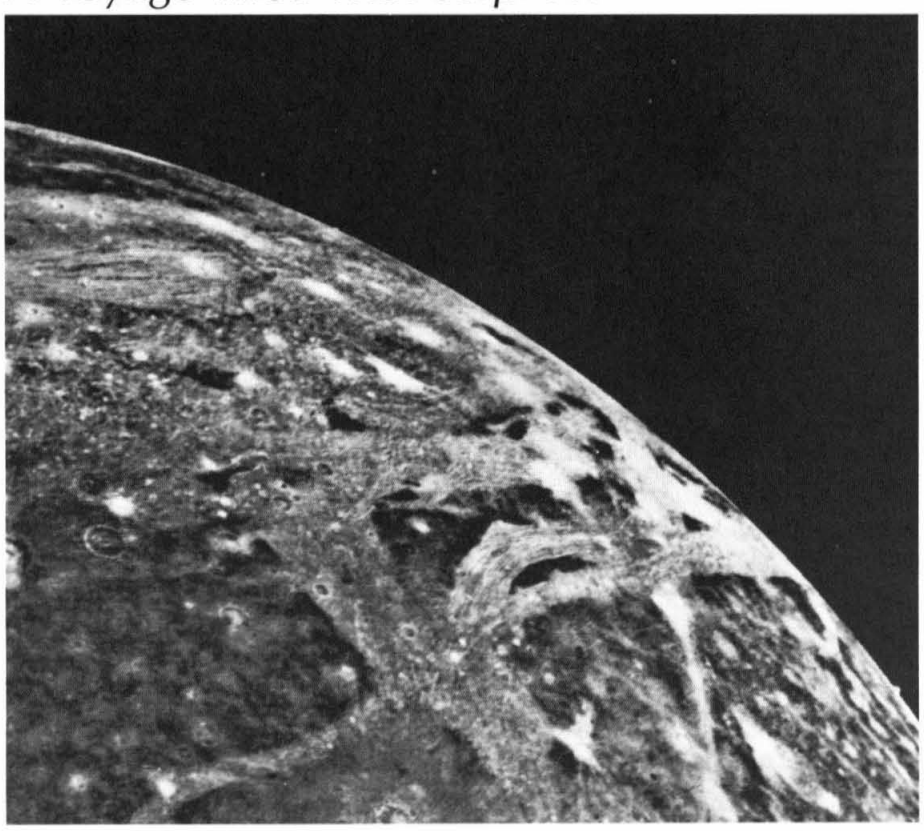
A voyage filled with surprises



As the Voyager I space probe transmitted its data to JPL, it turned previous theories about Jupiter topsy-turvy and revealed aspects of the planet that were not even suspected. Equally intriguing were pictures of the giant planet's four major satellites—photographs that caused one observer to remark, "There are no boring Jovian moons." This picture of Ganymede, Jupiter's largest satellite, was taken from a range of 151,800 miles. The smallest features visible are about 1.5 miles across; the surface shows numerous small impact craters. Ganymede is slightly larger than the planet Mercury but less dense—roughly twice the density of water. Its density is so low that some observers believe it may be made of as much as 40 percent water with a rock core. Edward C. Stone, Caltech professor of physics, is project scientist for the space probe.

At the galactic center
What's causing the violence?

Two astronomers at the Hale Observatories have produced the first "pictures" of the nucleus of our galaxy where some unknown violent process is at work. The astronomers are Eric E. Becklin, now at the Institute for Astronomy in Hawaii, and Gerry Neugebauer, professor of physics at Caltech. To obtain their pictures of the Milky Way's nucleus they scanned infrared radiation emanating from it.

Four other Hale Observatories' astronomers have also examined the galactic center at the wavelength of infrared emission that indicates an ionized form of neon gas. They learned that, at the galactic center, in a region crowded with stars totaling millions of times the mass of the sun, the neon is moving rapidly but is uniformly cool.

These researchers are John Lacy and Charles H. Townes of UC Berkeley, Fred Baas of Leiden University in the Netherlands, and Thomas Geballe of the Hale Observatories. Based on their observations of the neon, they calculated that about eight million masses of material equal to our sun exist within a central region of the galaxy that is about three light years in diameter.

In their studies they found singly ionized neon but no doubly or triply ionized elements of the gas — an indication that the neon in the galactic center is not being excited by hot stars or other superhot objects. Such extreme heating would have produced a more even mixture of singly, doubly, and triply ionized elements.

Some astronomers believe that a supermassive black hole, containing several million suns' worth of matter, exists at the galactic center, collapsed to an extremely dense state and exerting enormous gravitational pull. They theorize that the intense radiation from gas at the center is due to the energy released when matter falls into the hole and is consumed.

But Geballe stresses, "The evidence we've found for a uniformly cool galactic center hints that a single massive object — such as a black hole — *could* be responsible for the energy emissions that have been detected. But the evidence for a black hole is still only indirect."

Pierce recognized

John R. Pierce, BS '33, MS '34, PhD '36, Caltech professor of engineering, has been awarded the Fifth Marconi International Fellowship for outstanding advances in satellite and space technologies relevant to improving world communications.

The fellowship was established in 1974 by Gioia Marconi Braga, daughter of Guglielmo Marconi, on the 100th anniversary of his birth. A $25,000 award is made annually to enable the recipient to undertake or complete a project of study "which has as its ultimate objective the well-being of mankind."

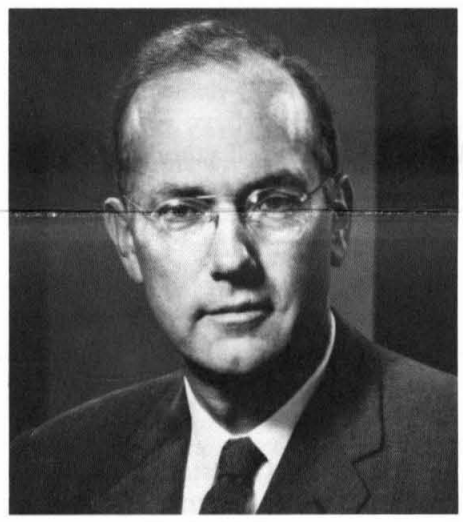
Townes, Wetzel
New Caltech Trustees

R. Stanton Avery, chairman of the Caltech Board of Trustees, has announced the appointment of two new members to the Board: Charles H. Townes, PhD '39, winner of the Nobel Prize for his research that led to the development of the maser and laser; and Harry H. Wetzel, Jr., chairman of the board and president of The Garrett Corporation.

Charles H. Townes

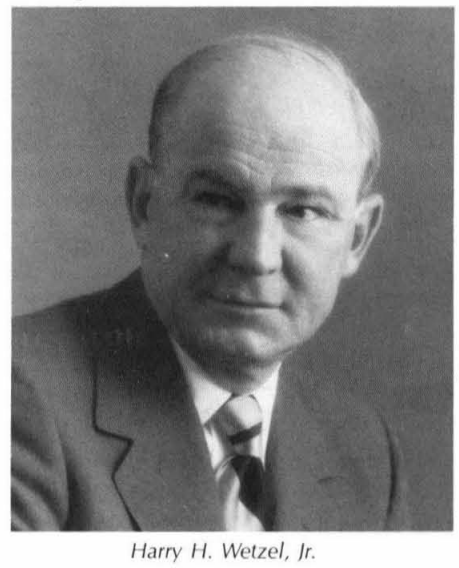
Townes, University Professor of Physics at UC Berkeley, joined the staff of the Bell Telephone Laboratories after receiving his PhD in physics from Caltech. From there he went to Columbia University, the Institute for Defense Analyses, and MIT. He joined the faculty at UC Berkeley in 1967.

Townes received the Nobel Prize in 1964 and has been the recipient of numerous other honorary degrees and awards, including the Comstock Award of the National Academy of Sciences, the Stuart Ballantine Medal of the Franklin Institute, the Rumford Premium of the American Academy of Arts and Sciences, the C.E.K. Mees Medal of the Optical Society of America, the Medal of Honor of the American Institute of Electrical and Electronics Engineers, the Plyler Prize of the American Physical Society, NASA's Distinguished Public Service Medal, the Thomas Young Medal and Prize of the Institute of Physics and the Physical Society of England, and the Wilhelm Exner Award.



Charles H. Townes

A member of the National Academy of Sciences Council, he has served on numerous governmental advisory committees, including as chairman of the Science and Technology Advisory Committee for the Manned Space Program, and as vice chairman of the President's Science Advisory Committee. He is a member of the Board of Directors of General Motors and of the Perkin-Elmer Corporation, and a Trustee of the Carnegie Institution of Washington. He is a past president of the American Physical Society.



Harry H. Wetzel, Jr.

Harry H. Wetzel, Jr.

Wetzel began his career with Garrett — a subsidiary of The Signal Companies — in 1946 as an engineer. Subsequently he held various management posts with the firm and also with AiResearch Manufacturing Company, a division of Garrett. In 1958 he was elected vice president and a member of the Board of Directors of The Garrett Corporation.

In 1962 Wetzel was named the corporation's executive vice president and the following year he became president. In 1966 he was named chairman of the board and chief executive officer of Garrett.

Wetzel also serves as a member of the boards of The Signal Companies, Thiokol Corporation, and the National Semiconductor Corporation, and is vice chairman of the Board of Governors of the Performing Arts Council of the Los Angeles Music Center.

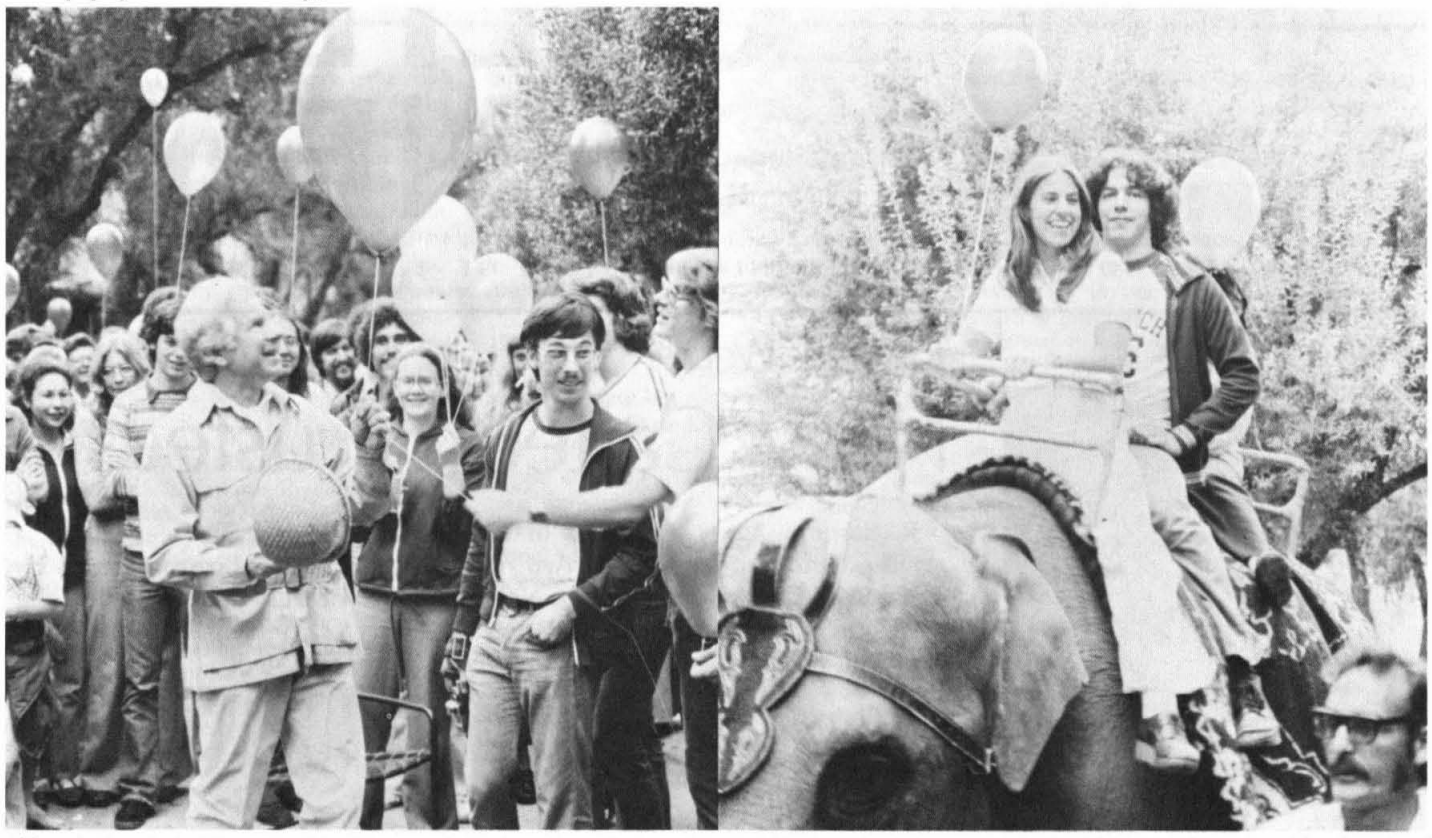
Born in Howard, Pennsylvania, Wetzel received a BS degree from Cornell University in 1941. That same year he joined the U.S. Air Force, and served until 1946.

Corcoran honored

William H. Corcoran, vice president for Institute relations and professor of chemical engineering at Caltech, has been awarded the Air Force Scroll of Appreciation from the Air Force Institute of Technology "for rendering exceptionally meritorious service to the United States as a member and chairman of the Air Force Institute of Technology (AFIT) Subcommittee of the Air University Board of Visitors."

Corcoran has a special interest in engineering curricula and has received numerous educational and research awards. He received the Western Electric Fund Award for excellence in teaching, the Educational Achievement Award of the California Society of Professional Engineers, and a teaching excellence award from ASCIT.

Happy Birthday, Einstein



Although Einstein had been dead for 24 years, Caltech undergraduates celebrated his 100th birthday in grand style. They staged a party with a five-tiered cake, Polish sausage, balloons, a German "oompah-pah band," and a real live elephant. (The latter touch was based on a probably apocryphal anecdote that Einstein once said, "Let elephants live," in reference to university administrations). Among those who joined in the celebration on the Olive Walk was Caltech President Marvin L. Goldberger, in the photo at left, comfortably dressed to ride the elephant. Right: Leslie Ann Rusch and Alexis Porras, both juniors, enjoy their turn as the elephant's trainer guides his charge.

Casseres denies creating Fansome

In recent issues, Caltech News *has probed the mystery of Fleming House's mythical student, Alluvial Fansome, and the question of who created him. In the February issue, David Hall, PhD '63, suggested that David Casseres, Ex '62, may have created Fansome as an outlet for the frustrations he experienced in chemistry when Hall was his TA.*

In the tradition of investigative journalism, Caltech News *got in touch with Casseres, who graduated from Reed College and lives in Palo Alto, California, and asked for his version of the Fansome affair. Casseres responded:*

Thank you for sending me the Fansome file. I dearly love to read about myself and my old friend Alluvial, not to mention several other old friends, especially Bruce Abell and David Hall. It's particularly nice to be remembered in such detail by my Chem 1 TA after 20 years. My *thesis advisor* from Reed College totally forgot me after *three* years.

I wish I *had* invented Fansome, but I didn't. Gordon Hughes and John Russ are right, and Peter Mayer is wrong. I do recall the conversation Peter referred to, and I guess my insistence on the point of Fansome's true name fooled Peter's memory after all these years. When I joined Fleming in 1959, Fansome was already well-known.

There is a droll wrinkle to the Fansome story, though. Even if I didn't originally pop him out of my head, I did sort of reincarnate him in my second brilliant but unfinished novel, *To Be Such a Freak*. The main character in the novel is an ace computer programmer and LSD merchant, living in Marin County and working on computer-augmented performances of electronic music, named "Al Fansome." If this opus ever sees print, only a select few will know Al's real first name and middle initial. The story takes place in about 1968. Since we know that Fansome has been in Fleming House from at least 1957 to the present, we have to assume that he's a very resourceful guy, particularly since he was also in combat in Viet Nam (where he lost one foot to a mortar shell). I'm delighted to hear of his marriage, by the way.

One final footnote to the Fansome file: The reason you can't trace Philip Marvin is that his name is Bob, although he might have registered at Caltech as Philip. If you dig through the morgue of the student paper circa 1959, you may find references to "Slob Martian." That's him, as renamed by Larry Sloss. Bob showed a lot of class, as your photo makes clear, and he was in fact a partial inspiration for Alluvial's behavior in the late '60s.

Thanks again for the memories. If you run this in the paper, will you send me a copy? I'd like to complete the file . . . at least until we find out who *did* create Fansome.

Very truly yours,

DAVID CASSERES, EX '61, EX '62, AND EX '63

ALUMNI ACTIVITIES

April 21
Field trip to the Goldstone astronomical facility near Barstow, California. Busses will leave Beckman Auditorium parking lot at 7:45 a.m. and return between 6 and 7 p.m. At Goldstone, alumni will see a film about facility operations and view the 34- and 64-meter stations.

May 1
New Mexico chapter meeting, the Bishop's Lodge, Santa Fe, New Mexico. Cocktails, 6:30 p.m.; dinner, 7:30 p.m.; $12.50 per person. Eugene Shoemaker, Caltech professor of geology, will speak on "The Origins of the Earth."

May 2
Denver chapter meeting, the Continental Denver Hotel, Valley Highway and Speer Boulevard. Cocktails, 6:30 p.m.; dinner, 7:30 p.m.; $8.00. Eugene Shoemaker speaks.

May 12
Alumni Seminar Day on the Caltech campus. See story on page 3.

June 2
San Diego chapter meeting. Tour of Scripps Institution of Oceanography and the Nimitz Marine Facility. Details will be announced.

On Seminar Day

Bring your used books

Everybody knows the value of spring housecleaning — to the housekeeper, at least — and here's an opportunity for Caltech alumni to do this year's cleaning stint and benefit the Caltech libraries at the same time. All they have to do is weed out their book shelves and bring the books they're willing to part with — hardcover, paperback, scientific, science fiction, children's, historical, hysterical, philosophical, or what have you — to the campus on Seminar Day, May 12. A bin will be set up in front of Beckman Auditorium to receive all offerings, and the books will turn up later at a book sale on May 25. The proceeds will go for special library needs.

A further opportunity to do something for Millikan Memorial and other book, journal, and serial collections on campus is now available. Edwin S. Munger, professor of geography and chairman of the faculty library committee, has announced the formation of a support group — The Friends of the Caltech Libraries — with Grant Dahlstrom, the distinguished Pasadena printer and publisher, as the honorary president.

Sports review

Basketball

The Beavers concluded a vigorous basketball season with 3 wins and 17 losses, enlivened by 2 victories over L.I.F.E. Bible College and 1 over the alumni, and 4 narrow defeats to league opponents. For the first time in several years the team's shooting was in the 40 percent range and the effort, according to Coach Huddy Scott, was "never give up and hustle all the time."

Contributing to season successes were graduating seniors Ernie Lewis and Bart Croes, four-year lettermen; Charles Curatalo, a three-year letterman; and Kevin Miller, a two-year letterman. The Beavers' leading scorer, sophomore Pat McMurtry of Sunnymead, played in the NAIA District III all-star game and won the Vesper Award. McMurtry will be back next year, along with leading rebounder Greg Blaisdell, leader-in-assists and team captain Pete Edwards, top free thrower Gary Tornquist, center Joe Zasadzinski, and Dave Howard, a sophomore guard.

Men's Swimming

Both the Caltech men's and women's swimming teams finished their seasons with records of two wins and three losses. The men's team defeated Whittier College and Redlands University; the women outdistanced Claremont-Harvey Mudd-Scripps and Redlands and were narrowly beaten by Whittier and by Occidental College.

Captain John Reimer, a senior, led the men's team with new school records in the 500 free (5:12.7), the 1000 free (10:44.0), and the 1650 free (18:04.8). He received consistent support from junior Bill Power in individual medley, breaststroke, and freestyle, and from freshman Arlen Anderson in the 50 and 100 freestyle.

Other contributing members were Stanley Chen and Terry Thomason in diving, along with Dan Ohlsen, Todd Olson, Kurt Bachmann, Joe McIntyre, Bill Polson, and Matt Wette. "Because there are only two graduating seniors on this year's team, the future looks bright," according to Coach Ed Spencer.

Women's Swimming

Junior Lynn Hildemann, a three-time conference 1- and 3-meter diving champion, paced the women swimmers this year as the team placed 5th in a field of 16. Hildemann also contributed points in backstroke events, while sophomore Bonnie Blamick added points in distance freestyle events and established new Caltech records in the 200 free (2:14.9), the 500 free (6:00.8), the 1000 free (12:22.7), and the 1650 free (20:33.3). Senior Pam Crane not only set a new Caltech record in the 100 free (1:00.8), but added points in the 50 free and relays.

Junior Christine Bockenstette set new Caltech records in the 50 back (34.2) and 100 back (1:13.8), while doubling in freestyle and individual medley. Junior Sue Fuhs swam breaststroke and distance freestyle while freshman Kathy Kirschvink

Continued on page 4

Preview: Seminar Day exhibits, lectures

From the Wright brothers' plane to the Voyager Mission — and from solar energy to fire fighting to a display of formalist abstractionist paintings — the exhibits planned for Alumni Seminar Day on Saturday, May 12, are designed to stimulate both scientific and artistic palates.

For aviation enthusiasts, a one-sixth scale model of the Wright brothers' airplane that was flown at Kitty Hawk in 1903 will be on display in 010 Thomas. The plane was designed by Fred Culick, Caltech professor of applied physics and jet propulsion. In wind tunnel tests at Caltech, it will be used to study the stability problems inherent in the invention of a successful airplane.

Voyager Mission display

For a look at space travel circa 1979, alumni and their guests can visit the Millikan Library Board Room between 12 noon and 1:45 p.m. where photographs of the planet Jupiter and its moons, taken during the Voyager Mission, will be shown. For the energy conscious, a solar-powered engine, designed to investigate the feasibility of chemical enhancement of solar energy collection, will be exhibited in the garden area between the Gates and Crellin buildings on San Pasqual Street. And for a look at modern fire fighting techniques, Edward E. Zukoski's laboratory at 207 Karman Laboratory will be open. Zukoski, who is professor of jet propulsion and mechanical engineering at Caltech, is investigating ways to make fire fighting a more exact, effective science.

Art exhibit

For art fanciers, Baxter Art Gallery in room 75 of the Baxter Hall of the Humanities and Social Sciences will be open from 12 noon to 5 p.m. A one-man show by Bruce Richards featuring water color and oil-on-canvas formalist abstractions will be on exhibit.

Throughout the day, from 9 a.m. to 2:30 p.m., the Caltech bookstore will be open, with its assortment of books, mugs, T-shirts, posters, and other gifts. Millikan Library, with its collection of technical materials and humanities and social sciences publications, will be open, as will the Arms Laboratory foyer with its mineral and gem collection.

The Seminar Day program of talks on new developments in research at Caltech will begin at 9:30 a.m. after registration at 8:30 a.m. in Dabney Lounge. Alumni and their guests will be served picnic lunches outside the Athenaeum at 12:30 and 1:15 p.m. with the Caltech Dixieland Band providing background music.

After the seminars, alumni are invited to a wine and cheese reception at 5:30 p.m. in the garden of the President's home. Dinner in the Athenaeum will follow at 6:30 p.m. Then, at 8 p.m. in Beckman Auditorium, the Caltech Glee Club will perform in its annual home concert.

Summaries of the Alumni Seminar Day lectures appear below.

Control of Sulfate Air Pollution: One Step Toward Unraveling the Los Angeles Visibility Problem

By Glen R. Cass
Assistant Professor
of Environmental Engineering

Severe visibility deterioration is one of the most obvious aspects of smog in the Los Angeles basin. Abatement of the pollutants that cause a reduction in visibility has lagged, often because the emission sources responsible for the problem could not be identified accurately enough for emissions controls to be prescribed. But recent advances in the design of efficient control strategies for visibility-reducing aerosols give hope that we will see air-quality improvement, according to Cass.

British Colonialism: Profit or Loss?

By Lance E. Davis
Professor of Economics

For at least one hundred years, academicians, journalists, and politicians have argued about the profitability of investment in "empire" and the "exploitation" of the empire's native residents. Davis will examine the economics of the British empire during its period of "high imperialism" (1860-1912) and will attempt to estimate the rate of return on imperial investment, to identify the source and nature of intraempire financial transfers, and to identify winners and losers in the imperial game. The results, according to Davis, are not those that one might expect, given the nature of the political rhetoric.

Nature of the Chemical Bond, Revisited

By William A. Goddard III
Professor of Chemistry
and Applied Physics

The fundamentals of chemical bonding were elucidated by Linus Pauling at Caltech in the 1930s. Recent advances have extended these ideas to the understanding of the microscopic mechanisms of chemical reactions. Goddard will use several examples to illustrate the new ideas, including the bonding of molecular oxygen to hemoglobin, the oxidation of semiconductor surfaces (Si and GaAs), and oxidation of organic molecules.

Dark Visions of the Fallen World: William Blake's Color-Printed Drawings of 1795

By Jenijoy La Belle
Associate Professor of English

Blake created 12 large color prints in 1795 that are generally considered his greatest works of sublime art. Although the subject matter is from sources as diverse as the Bible, the history of science, and Shakespeare, these brooding monumental images all relate to each other and to Blake's poetry in interesting and complex ways. Among the most fascinating images, according to La Belle, are those of the mysterious witch Hecate, the bestial monarch Nebuchadnezzar, God creating a tormented Adam, and Isaac Newton investigating material nature.

Prophecy and Fact: The Oaxaca, Mexico, Earthquake of 29 November 1978

By Karen C. McNally
Senior Research Fellow in Geophysics

In November 1978, Caltech, in cooperation with the Institute of Geophysics of the University of Mexico, successfully "trapped" a large earthquake along the coast of southern Mexico. A dense array of field seismographs surrounding the mainshock area for three weeks prior to failure recorded unique data for worldwide studies of seismic processes that lead to large earthquakes. Prior to failure a seismically quiet area surrounded the eventual mainshock location. But 31 hours before the mainshock, the foreshock sequence began migration through the quiescent zone toward the eventual rupture point. The seismologists also found evidence suggesting alternating episodes of precursory weakening along the plate boundary above and below the main rupture area.

Present Day Plate Motions

By Jean-Bernard H. Minster
Associate Professor of Geophysics

During the past 15 years, plate tectonics has grown from a bold new hypothesis to a well-established theory which provides a unifying background for most research in the earth sciences. But the thrill of progress and discovery still pervades the field, as the image that we form of our ever-changing planet becomes more focused, according to Minster. It may become necessary to refine the theory as more numerous and better observations become available, Minster will tell alumni.

Recent Results of Atmospheric Tracer Techniques Applied to Several Safety and Environmental Problems

By Frederick H. Shair
Professor of Chemical Engineering

The use of non-toxic atmospheric tracer techniques (that allow the concentration of certain tracers to be measured from 1 to 10^{-12} parts tracer per part of air) has yielded new insights into a variety of pollution problems. Shair will summarize the results of several recent investigations, and will discuss various aspects of the transport and dispersion of pollutants in the Los Angeles basin. He will also describe several surprises concerning the importance of the reentry of exhausted contaminants in the total characterization of chemical fumehoods.

Voyager 1 at Jupiter: An Encounter with a Giant

By Edward C. Stone
Professor of Physics

The Voyager 1 spacecraft flew by Jupiter on March 5, 1979, returning a great variety of new information on the Jovian atmosphere, satellites, magnetic field, and trapped radiation. The motion of the clouds has been recorded in a time-lapse movie, providing new insight into the Jovian weather system. Detailed studies of the four Galilean satellites have provided important clues to the structure and composition of these planet-sized objects. Concurrent measurements of the radiation environment and its effect on the embedded satellites have also contributed to our knowledge of the Jovian planetary system.

A View of the World From The Monkey's Brain

By David C. Van Essen
Assistant Professor of Biology

About half of the monkey's cerebral cortex is devoted to handling visual information transmitted from the eyes. The visual cortex contains a mosaic of anatomically distinct areas, numbering a dozen or so, that carry out specific visual functions and provide the monkey with perceptual capacities rivaling those of humans. Van Essen will analyze the ways in which form, color, and movement in the visual field are analyzed by individual nerve cells within different visual areas.

The Restless Microbiological World As Viewed From a Fluid Physical Window

By Theodore Y.-T. Wu
Professor of Engineering Science

Micro-organisms swim about in fluid media almost everywhere with impressive speeds. The flagellar movement of myriad species of bacteria and spermatozoa and the ciliary locomotion of protozoa will be discussed by Wu as he shows a series of high-speed micrographic movies. The cleansing process of the muco-ciliary system in our lung and various ciliary activities in other mammalian organs will be shown as examples of processes necessary to perpetuate the living world.

Cloning

By James F. Bonner
Professor of Biology

To clone is to reproduce an individual without benefit of sex. Although cloning of plants has been practiced by human farmers for almost 10,000 years, it did not become a topic of everyday conversation until the last five years. The forces that brought cloning out of the closet involved the realization that cloning of humans may one day be possible as well as the widely advertised cloning of individual genes (recombinant DNA technology). Is cloning good, bad, or neutral? Let's see, says Bonner.

Learning to Fly in 1903— The Origins of the First Airplane

By Fred E. C. Culick
Professor of Applied Physics
and Jet Propulsion

The Wright Brothers' invention of the powered man-carrying airplane

Continued on page 4

PERSONALS

1930

IRA C. BECHTOLD has received the 1979 Outstanding Engineer Merit Award of the Institute for the Advancement of Engineering. Bechtold is the founder, president, and director of Bechtold Satellite Technology Corporation in the City of Industry, California. A consulting geologist and geophysicist, he specializes in remote sensing techniques, use of space photography, and application of new developments from NASA and other organizations to practical mineral, petroleum, and geothermal exploration, hydrology, land use planning, geologic hazards, environmental studies and control.

JOHN S. MURRAY writes that he has been active with the International Executive Service Corps since his 1975 retirement from the Sheller-Globe Corporation. In 1976 and 1978 he spent two-month tours of duty in Brazil for IESC as a consultant to Companhia Prada Industria e Comercio of Sao Paulo. IESC is a non-profit organization that offers professional services to industries and governments of developing countries. Murray adds, "Mrs. Murray and I enjoyed very much our stays in Brazil and we recommend enrollment in the International Executive Service Corps to any alumnus who is enjoying retirement, but who would like an occasional opportunity to make good use of the skill and experience gained in his active career. Assignments are usually for two months and never for more than three months." The Murrays live in San Marino, California.

1936

The normalization of relations with China has prompted this letter from an alumnus there, CHAOYING MENG, PhD: "I feel very much obliged for receiving constantly from you the *Caltech News*. It keeps me informed about our alma mater, about which I feel a deep attachment and many happy reminiscences. Now that the relationship between our two nations has been normalized, I feel it my duty to enhance and further develop the understanding between our two great peoples.

"The friendship between the peoples of China and the United States has been a long one. Many Chinese students — I being one — have received their education in the States. There are many things that we have to learn from you, especially science and technology. We are looking forward to our alma mater's consenting to training more Chinese students. I noticed in the *Caltech News* names of some friends with whom I have lost contact for many years. I am enclosing a letter to G. W. READ [BS '30, MS '31], asking your favor to forward. I would also like to ask you about the address of some of my friends whose names did not appear in the *Caltech News*. They are: S. S. WEST [PhD '35]; HAROLD WAYLAND [MS '35, PhD '37].

"Of our alumni in China, I know that TSIEN WEICHANG is in Tsinghua University, and that HSU CHANGPEN is deceased."

1937

PAUL C. SCHAFFNER, who worked for Marsh & McLennan, Inc., for 40 years, retired as senior vice president in January. He lives in La Canada, California.

1940

RALPH G. PAUL writes, "Am retiring after nearly 34 years at McDonnell Douglas Astronautics. Plan to move to rural northern California. For the last ten years I did the advance planning in quality control for new business proposals."

1945

WILLIAM R. PERKINS writes, from Sherman Oaks, California, "I've developed a saxophone and/or flute-to-synthesizer interface which is currently being used on records and TV films. I'm hoping to market the device."

1946

LAURENCE O. HAUPT, JR., MS '47, says he has been seeing much of the world from his yacht, "Hauptsache," a 42-foot Whitby ketch, since his retirement in 1976 from Proctor & Gamble in Cincinnati. He and his wife, Dorothy, have sailed to Spain, Portugal, Greece, and Turkey, and plan a cruise later this year to Rhodes, Santorini, Crete, and Yugoslavia.

1948

N. JOHN BECK, MS, is the new president of the San Diego County Council, Boy Scouts of America. Beck is president of BKM, Inc., Management and Engineering Consultants in Bonita, California.

1949

FREDERIC T. SELLECK has retired as president of Fluid Properties Research, Inc., and is giving full time to his job as supervising process engineer with the Fluor Corporation in Irvine, California. Selleck was president of the Alumni Association in 1967-68.

1950

MELVIN SPRECHER reports, "I have been on sabbatical since last August from my counseling position at Los Angeles Valley College in order to finish my last year at Whittier College School of Law. I will graduate with my JD in May, the same month my second grandchild is due, and will take the bar in July. Going to school has been even more fun the second time around."

1974

LEE W. VIBBER and her husband, JAMES C. VIBBER, BS '73, BS '74, announce the birth of Brion Lucas on December 1. Their first son, Kelson Thomas, was born in March 1976.

1977

Caltech News apologizes to Mr. and Mrs. EDWARD C. REA (REBECCA HARTSFIELD, BS '78) for giving them a son instead of a daughter. The Reas are the parents of Susan Marie, *not* David Barry, as announced in the February issue.

OBITUARIES

1921

EDWARD G. FORGY on March 2 at his home in Santa Barbara. He worked for Westinghouse Electric Corp. in Buffalo, New York, as a sales manager for 40 years, until his retirement in 1962. He is survived by his wife, Pearl, a son, Edward, and four grandchildren.

1925

HAROLD C. SHEFFIELD on February 4. A retired lieutenant colonel who was living in South Pasadena, Sheffield had been an active worker for the Alumni Fund. He is survived by his wife, Miriam, a son, a daughter, and three grandsons. Donations may be sent to the J. Clifford Lee Memorial Center Fund, in care of the Eastern Star Chapter No. 272, 1126 Fair Oaks Avenue, South Pasadena, California 91030.

1934

NORMAN S. JOHNSON on February 28. He had been living in Las Vegas, Nevada, and is survived by his wife and three sons. Johnson was a self-employed consultant.

1937

WILLIAM G. CLARK, PhD, on February 13 of heart failure. Clark was the chief of the psychopharmacology research laboratory at the Veterans Administration Hospital in Sepulveda. He is survived by his wife, Betty, of Reseda, California, a son, James Clark, and a daughter, Sherry James.

1940

GILBERT R. VAN DYKE, JR., MS '41, on February 7 of cancer. He served as an officer in the Army Air Corps for five years in World War II and then went to work as a petroleum engineer for the company he served for 33 years, Aminoil U.S.A., Inc. (formerly Signal Oil & Gas), in Long Beach. A life member of the PTA, he was a scoutmaster for the Boy Scouts for 11 years, and a member of the board of directors for the Camp Fire Girls. As an active member of the Episcopal Church, he served as a teacher, a youth leader, and vestryman. J. L. KEMP, BS '40, says, "His alumni activities included being the chief motivator for the 'Roaring Twenties' Class Reunions." Van Dyke's hobbies were backpacking and rock hounding. He leaves his wife, Eunice, his son, Gilbert III, his daughter, Kitty, and five grandchildren.

ROBERT B. YOUNG on February 7. An early associate of Theodore Van Kármán, he was serving as engineering vice president of Aerojet-General Corp. in El Monte, California. He was instrumental in developing many of the nation's rocket propulsion systems, including those for the Air Force Titan, and the Apollo Spacecraft main engine. In the early 1960s, Young worked with NASA as an associate of Dr. Wernher von Braun to develop engines for the Saturn moon rocket. He is survived by his wife, Ann, of Arcadia; three children, Patricia, Robert Jr., and Deborah Ann; and two grandchildren.

Sports review

Continued from page 2

swam butterfly, breaststroke and individual medley events and dove in the conference championships. "The women enjoyed a good year and are looking forward to the next season with the hopes of adding team members and finishing higher in the conference," Coach Spencer says.

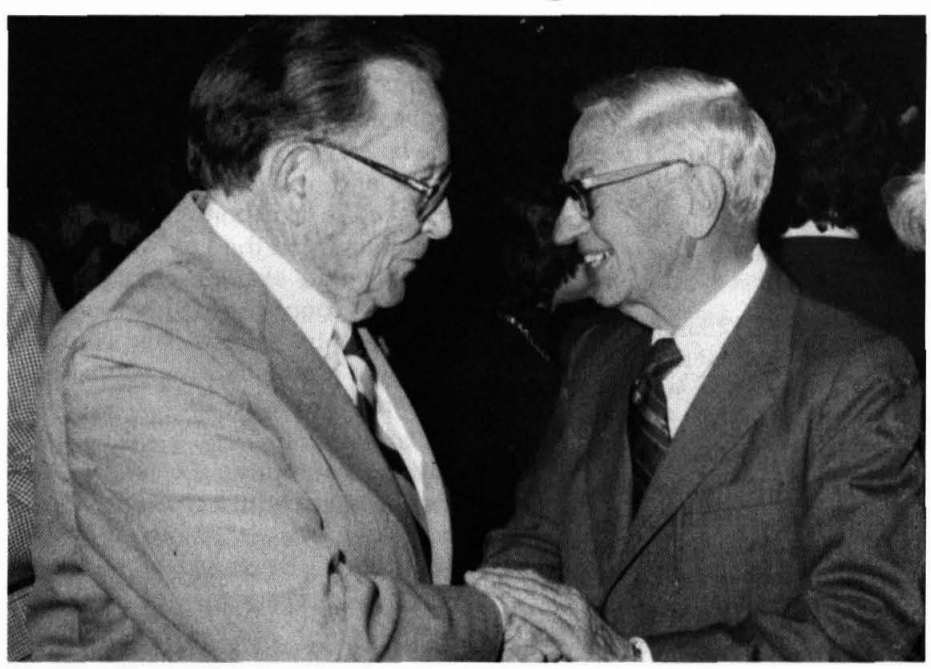
Wrestling

The current season must be considered a low point in the traditionally fine Caltech wrestling program. After Tom Gutman left Caltech at the end of the football season, Dave Toycen and Jim Woodhead assumed coaching responsibilities. They began the season with nine wrestlers and considerable optimism for success in the conference. But the attrition began to take its toll and was accelerated when first-term grades came out.

The net result was that, after the Christmas break, Kurt Runge was the only surviving member of the squad. Kurt's competition came in tournaments at Caltech, Biola, and Cal Lutheran. In the Biola tournament he suffered a shoulder injury that prevented him from wrestling in the SCIAC tournament. For the first time since the beginning of conference wrestling in 1968, Caltech was not represented in the conference competition.

With the hiring of a new football and wrestling coach, it is hoped that next fall will mark the rebirth of what has been one of Caltech's finest sports, according to Warren Emery, director of athletics.

Gnomes celebrate founding



Theodore C. Coleman, BS '26, greets Caltech President Emeritus Lee A. DuBridge at the Gnomes' annual Founders' Day Dinner where Philip M. Neches, BS '73, MS '77, was installed as president. Caltech's first social organization, the Gnome Club evolved into a service group after fraternities ceased to exist on the campus in 1932.

Preview: Seminar Day

Continued from page 3

began with 19th century technology and was achieved after a systematic program of research and development. Culick's lecture will be devoted primarily to the story of the years 1899 to 1903 when the Wrights learned how to fly and build successful aircraft.

Waltz night on campus

Alumni who are in Pasadena for Alumni Seminar Day can take advantage of a special treat this year: a chance to waltz to the music of the Collegiate Symphony Orchestra as it presents "A Night in Old Vienna."

Playing in Dabney Lounge, the orchestra, composed of students, faculty, and staff at Caltech and Occidental College, will commence its program at 8:30 p.m. on Friday, May 11 (the evening before Alumni Seminar Day), with the overture to *Die Fledermaus*. Formal or semi-formal attire is suggested, according to Orchestra President Robert M. Hanson, a senior majoring in chemistry. Hanson says that refreshments will be served and that guest vocalists will sing excerpts from *Die Fledermaus* and *The Merry Widow*. There is no charge.

NOTICE IS HEREBY GIVEN that pursuant to the bylaws of the Alumni Association, California Institute of Technology, the annual meeting of the members thereof will be held the twenty-first day of June, nineteen hundred and seventy-nine, at 6 p.m. in the Athenaeum, 551 South Hill Avenue, Pasadena, for the purpose of receiving results of the election of officers and directors and for the purpose of transacting any and all business that may properly come before such meeting of the members.

CAREL OTTE, MS '50, PHD '54,
PRESIDENT

STANLEY A. CHRISTMAN, BS '65
SECRETARY

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EDITORIAL STAFF
Executive editor: Winifred Veronda.
Staff associates: Phyllis Brewster, Diane Davis, Paula Hill, and Kay Walker.
Photographer: Richard Kee.